

# Atlantic Richfield Company

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November 4, 2013

## **CERTIFIED – RETURN RECEIPT REQUESTED**

Ms. Jere Johnson  
Remedial Project Manager  
U.S. Environmental Protection Agency Region 9  
75 Hawthorne Street, SFD-9-1  
San Francisco, CA 94105

**Subject: October 2013 Monthly Report, Yerington Mine Site, Lyon County, Nevada:  
Administrative Order for Remedial Investigation and Feasibility Study (RI/FS),  
CERCLA Docket No. 96200760005; Administrative Order on Consent, CERCLA  
Docket No. 096200960010**

Dear Ms. Johnson:

Pursuant to the above referenced orders issued by the U.S. Environmental Protection Agency " Region 9 (EPA), Atlantic Richfield Company (ARC) has prepared this October 2013 monthly report for RI/FS and Operations and Maintenance (O&M) activities at the Yerington Mine Site (Site).

## **October 2013 Activities**

### Site Security and O&M Activities

- Continued Site O&M, security and bird deterrent activities. Cameras at various locations (e.g., Main and Arimetco gates, entrances to buildings) indicated no activity of concern.
- Two new evaporation ponds were constructed to support the Arimetco fluid management system (FMS). Broadbent Engineering, Fawcett Electric and Desert Engineering personnel completed construction of the two new ponds, each with 1.6 million gallons of capacity, and demobilized from the Site on October 24. For reporting purposes, the FMS Evaporation Pond and the two new ponds adjacent to the FMS Evaporation Pond (EPA 4-acre pond), will be designated as 'FMS Evaporation Pond A', 'FMS Evaporation Pond B' and FMS Evaporation Pond C', respectively (the new pond adjacent to FMS Evaporation Pond A is FMS Evaporation Pond B).
- As directed by EPA, a Bird Wailer deterrent system was placed on the berm between the two new evaporation ponds constructed adjacent to the FMS Evaporation Pond. The Bird Wailer is designed to provide a greater variety of deterrent sounds than previously utilized systems. A bird mitigation wind dancer and two bird mitigation deterrent flags have also been deployed around the two new evaporation ponds. During construction, the propane cannons located at the FMS Evaporation Pond A were shut off, and were reactivated on October 30 after construction activities ended. Other propane cannons remained in operation, with the exception of the cannon at the VLT Pond, as directed by EPA.
- To reduce birds becoming habituated to the wind dancers and bird mitigation flags remaining in one location, the flags and wind dancers were relocated every two weeks or as needed, based on observations by Site O&M personnel. Wind dancers remained active on the VLT and Slot Pond, and the wind dancer located near PW-6 was temporarily shut down the week of October 28 to accommodate work on the pumpback well electrical system.

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## October 2013 Activities 6 Continued

### Site Security and O&M Activities " Continued

- Bird identification and mitigation training activities occurred on October 17.
- Due to two rain events in October, which resulted in accumulated rain water in the Lined Evaporation Pond (LEP) and the Pumpback Well System (PWS) Evaporation Pond, Bird Gard towers 'A', 'B' and 'C' around these ponds were in operation.
- Modifications to the electric lines and power connections located at PW"4, "5, "7 and "10 were initiated. These modifications were done to allow the 240"volt wind dancers to receive line power.
- Water levels in the PWS Evaporation Pond at the end of September were as follows: North Cell = 0.0 feet; Middle Cell = 0.0 feet; South Cell = 0.0 feet. As noted above, incidental (but not measurable) rain water occurred in these cells in October.
- Arimetco FMS pond levels: Phase 1 Pond = 3.70 feet ; FMS Evaporation Pond A = 8.94 feet; FMS Evaporation Pond B = approximately 1 foot; FMS Evaporation Pond C = approximately 0.5 feet; VLT Pond = 11.97 feet; Slot 2 Pond = 12.55 feet. At the direction of EPA, drain"down solutions from the Phase III heap leach pads were directed to the VLT Pond. Approximately 211,100 gallons of solutions were pumped from the VLT Pond to FMS Evaporation Pond B on October 30" 31, and approximately 161,000 gallons of solution were pumped from the Slot Pond to FMS Evaporation Pond C on October 31 (stage"volume relationships for the two new ponds are yet to be finalized). The fluid transfers were performed to place a sufficient volume of drain"down solutions in the new ponds to create ballast and prevent wind damage to the liners. See attached monitoring data.
- Approximately 24,123 gallons of solution were pumped from the leak detectors including 11,837 gallons from SD2 near the Slot Pond and approximately 8,665 gallons from VLTD1 at the VLT Pond. A total of approximately 1,283,352 gallons of solution have been pumped from the leak detectors since January 1. See attached monitoring data.
- Limited dust suppressant applications to select areas (berms and embankments) occurred from October 28"31. Application of dust suppressant on the flat surfaces of the LEP and the Unlined Evaporation Pond (UEP) were not performed due to standing rain water or wet ground conditions.

### Site Characterization Activities

- Monthly groundwater elevation measurements were obtained October 22"24.
- A pit lake water elevation of approximately 4,230.00 feet amsl was recorded on October 23 from the pressure transducer, a decrease of approximately 0.03 feet since September 23, 2013. The pit lake elevation has risen approximately 1.79 feet since October 23, 2012.
- A signed access agreement for domestic well sampling was received from the owner of well DW" 202. The owner of DW"71 requested to be removed from the domestic well sampling program as the house is unoccupied with no power. DW"69 was removed from the domestic well sampling program because the house is now serviced by the Yerington Paiute Tribe (YPT) water system.
- One residence (DW"199) accepted participation in the Bottled Water Program based on 3Q 2013 results. A new owner at DW"87 has requested bottled water delivery, which was restarted.
- Continued the compilation of 3Q 2013 groundwater and domestic well monitoring data.
- Drilling activities for the Additional Monitor Well Installation Work Plan continued with the installation of monitor wells FMS"05S, HLP"04S, HLP"05B, HLP"06B, HLP"08S, HLP"08I, HLP"08D1, HLP"08D2 and HLP"08B. Drilling and zonal groundwater sampling is ongoing at the B/W" 27, B/W"59 and B/W"82R locations.
- Initiated the preparation of a letter to EPA requesting the elimination of monitor well B/W"14S from the active monitor well network due to loss of access and anomalous arsenic results.
- Continued modifications to the Revised Groundwater (OU"1) RI Work Plan, and associated appendices and attachments, based on EPA and YPT comments.
- Initiated the preparation of a draft work plan for Single"Step Chemical Extraction (Leach) Tests requested by EPA in Comment #44 on the Revised Groundwater (OU"1) RI Work Plan.
- Continued groundwater flow modeling activities.
- Continued to compile and evaluate analytical data from standing water samples that were collected from various locations on the Site after the July 4 precipitation event.

## October 2013 Activities 6 Continued

### Site Characterization Activities " Continued

- Continued work on the DSR for the OU"3 sub"surface utility and dry well investigations.
- Completed the planning, drilling contractor procurement, field preparation and health and safety training for the Process Areas OU"3 Step"Out Drilling Program. Spectrum Geophysics performed utility location services on October 8"18 in support of the drilling program. The field investigations in Sub"Area 1 were initiated on October 30. Drilling and sampling activities were completed at: PA"AST1, PA"AST2, PA"UT25A, PA"UT25B and PA"UT25C, and drilling started at PA"W1A.
- Routine database management activities and support of Site investigations and reports.

## Planned November/December 2013 Activities

### Site Security and O&M Activities

- Continue routine Site O&M, security and bird deterrent activities.
- As needed, continue fluid transfers to the two new evaporation ponds to maintain ballast.
- Complete electrical modifications to support the windmills located around the LEP and PWS Evaporation Pond.

### Site Characterization Activities

- Continue groundwater elevation and pit lake level measurements, and meteorological monitoring.
- Continue the Bottled Water Program.
- Transmit the 3Q 2013 Domestic Well Monitoring Report (DWMR) and the 3Q 2013 Groundwater Monitoring Report (GMR).
- Perform the 4Q 2013 domestic well monitoring event.
- Transmit the Preliminary Bedrock Well Investigation Data Summary Report (DSR).
- Transmit the revised Site"Wide Groundwater (OU"1) RI Work Plan and responses to comments.
- Transmit the Draft YPT Well DW"5 Aquifer Test Work Plan.
- Continue field work associated with the Additional Monitor Well Work Plan.
- Continue aquifer solids testing activities in support of future fate and transport analysis, including the development of a Draft Chemical Extraction Test Work Plan.
- Transmit a draft work plan for supplemental characterization activities for the Evaporation Ponds and the northern portion of the Calcine Ditch.
- Continue to compile the data and transmit the DSR for the Phase II geophysical and soil investigations associated with sub"surface utilities in the Process Areas.
- Continue field work associated with the Process Areas (OU"3) RI Work Plan.
- Attend a groundwater technical meeting on December 10.
- Review data quality objectives for the Wabuska Drain (OU"7) RI Work Plan when received.

Please contact me at (714) 228"6774 or via e"mail at [jack.oman@bp.com](mailto:jack.oman@bp.com) if you have any questions or comments about the October 2013 monthly report.

Sincerely,



Jack Oman  
Project Manager

Attachment

cc: Dave Seter, EPA – via electronic mail  
Harry Ball, EPA – via electronic mail  
Andrew Helmlinger, EPA – via electronic mail  
Tom Dunkelman, EPA – via electronic mail  
Greg Lovato, NDEP – via electronic mail  
Jeryl Gardner, NDEP – via electronic mail  
Tom Olsen, BLM – via electronic mail  
Dan Newell, City of Yerington – via electronic mail  
Phyllis Hunewill – via electronic mail  
Virgil Arellano, Lyon County Commissioner – via electronic mail  
Rob Loveberg, Lyon County Planning Department – via electronic mail  
Tom Grady, Nevada State Assembly – via electronic mail  
Chairwoman Howard, YPT – via electronic mail  
Jon Mosely, YPT – via electronic mail  
Deborah Dunn, YPT – via electronic mail  
Dietrick McGinnis, McGinnis and Associates – via electronic mail  
Tom Bowden, Ridolfi, Inc. – via electronic mail  
Chairwoman McFalls, WRPT – via electronic mail  
Tad Williams, WRPT – via electronic mail  
Ron Halsey, Atlantic Richfield Company – via electronic mail  
James Lucari, Atlantic Richfield Company – via electronic mail  
Marc Ferries, Atlantic Richfield Company – via electronic mail  
Brian Johnson, Atlantic Richfield Company – via electronic mail  
John Batchelder, EnviroSolve – via electronic mail  
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